ABSTRACT

The present invention provides a system capable of automatically making a diagnosis of a semiconductor device manufacturing apparatus, based on a result of particle detection on a substrate such as a semiconductor wafer. In one preferred embodiment, the surface of the wafer is divided into square-shaped minute areas of 0.1 mm to 0.5 mm, and existence of particles in each minute area is inspected. Based on the inspection result, data, in which existence of particles in each minute area is correlated with the address thereof, is created. The surface of the wafer is divided into several tens to several hundreds of evaluation areas. A binarized data is assigned to each evaluation area, and is determined based on the fact that the number of the minute areas in which particles are detected included in the evaluation area is larger, or not larger than a predetermined reference value. A correspondence table, showing the relationship between binarized data arrangements and the causes of particle adhesion, which is made based on empirical rules or experimental results, is prepared. By applying the binarized data made based on the inspection result to the correspondence table, the cause of particle adhesion can be identified.